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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

JOO, JOSHUA

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/886,869	Applicant(s) CAI ET AL.	
	Examiner Joshua Joo	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment filed 10/27/2005

1. Claims 1-4 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt III, Patent #6,324,565, in view of Agrawal et al, US Publication #2002/0004813, and Tock, US Publication #2004/0064570.

4. As per claim 1, Holt III teaches substantially the invention as claimed including an apparatus for providing generated documents to clients. Holt III's teachings comprise of:

network connecting unit for fetching data from backend servers and packaging the data into elements. (Col 6, lines 29-31. Data is retrieved from the content providing server.)

cache for caching the elements formed by said network connecting unit by packaging. (Col 5, lines 19-23. The data used in creating the document is cached.)

controller, in response to a request for information service from a client, for fetching relevant elements from cache (Col 5, lines 11-20. Cache software determines if the document is located in the cache, then intermediate server receives document information.), and for the elements that cannot be fetched from the cache, instructing the network connecting unit to fetch corresponding data from backend servers (Col 5, lines 54-62. The system determines whether the data needed to make the documents are required from the cache and from the content

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providing server. Col 6, lines 29-31. Data is retrieved from the content providing server.) and obtaining the elements formed by the network connecting unit by packaging (Col 6, lines 41-44. Once all the data has been gathered, a document is made.), and

finally packaging all the fetched elements into a document and sending it back to the client. (Col 6, lines 52-55. Once the document has been created, the document is transmitted to the client.)

5. Holt III teaches substantial features of the claimed invention including generating HTML documents for clients by obtaining HTML elements. However, Holt III does not teach of caching XML elements in a document object model tree according to a cache strategy including at least one of depth, medium, weight, and scale; packaging XML elements into a XML document; and clients being a plurality of types of devices.

6. Agrawal teaches of caching XML elements to form a XML document upon client request (Paragraph 0029; 032), wherein XML elements are in a document object model tree according to a cache strategy including at least one of depth, medium, weight, and scale (Paragraph 0028-0029; 0034).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt III and Agrawal because the teachings of Agrawal to perform the above method of Paragraph 6 would improve the system of Holt III by efficiently servicing requests for content by efficiently accessing and retrieving dynamic content as taught by Agrawal (Paragraph 0013). Furthermore, XML documents do not deal with the presentation, but just the content itself. Therefore, sending XML documents would require less bandwidth.

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8. Tock teaches of plurality of devices that can request information from a web server, where the plurality of devices may include a computer, PDA, and cellular phone (Paragraph 0085; Fig. 2B.).

9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt III, Agrawal, and Tock because all teachings deal with servicing client requests by web servers. Furthermore, the teachings of Tock for the clients to be a plurality of types of devices would improve the system of Holt III and Agrawal by increasing the usability of the invention, allowing clients to use different devices, such PDAs and cellular phones that have less bandwidth, to receive dynamically generated documents.

10. As per claim 3, Holt III teaches substantially the invention as claimed including an apparatus for providing generated documents to clients. Holt III's teachings comprise of:

receiving a request for information service from a device (Col 4, lines 66-67. Server receives a document request from the client.);

fetching elements which are relevant to the request for information service from a local cache (Col 4, lines 24-28. Intermediate server has caching software and cache. Col 5, lines 11-20. Cache software determines if the document is located in the cache, then intermediate server receives document information.);

if no relevant elements are fetched from the local cache, fetching corresponding data from backend servers, packaging the data into elements in the local cache (Col 6, lines 26-34. If the data is not located on the intermediate server, data is received from the content providing server. Once the data is received, it is cached.);

packing all the fetched elements into a document and sending it back to the device (Col 6, lines 41-55. The data is used to create a document and send to the client.).

11. Holt III teaches substantial features of the claimed invention including generating HTML documents for clients by obtaining HTML elements. However, Holt III does not teach of caching XML elements in a document object model tree according to a cache strategy including at least one of depth, medium, weight, and scale; packaging XML elements into a XML document; and clients being a plurality of types of devices.

12. Agrawal teaches of caching XML elements to form a XML document upon client request (Paragraph 0029; 032), wherein XML elements are in a document object model tree according to a cache strategy including at least one of depth, medium, weight, and scale (Paragraph 0028-0029; 0034).

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt III and Agrawal because the teachings of Agrawal to perform the above method of Paragraph 12 would improve the system of Holt III by efficiently servicing requests for content by efficiently accessing and retrieving dynamic content as taught by Agrawal (Paragraph 0013). Furthermore, XML documents do not deal with the presentation, but just the content itself. Therefore, sending XML documents would require less bandwidth.

14. Tock teaches of plurality of devices that can request information to a web server, where the plurality of devices may include a computer, PDA, and cellular phone (Paragraph 0085; Fig. 2B.)

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt III, Agrawal, and Tock because all teachings deal with servicing client requests by web servers. Furthermore, the teachings of Tock for the clients to

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be a plurality of types of devices would improve the system of Holt III and Agrawal by increasing the usability of the invention, allowing clients to use different devices, such PDAs and cellular phones that have less bandwidth, to receive dynamically generated documents.

16. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt III, Agrawal, and Tock, in view of Chandra et al, Patent #6,457,047 (Chandra hereinafter).

17. As per claim 2 and 4, Holt III teaches of an invention where documents for clients are generated from data obtained from the cache and the backend server to reduce network traffic. However, Holt III does not teach of an indexing mechanism for creating indices for all the XML elements stored in the cache.

18. Chandra teaches of a centrally maintained table in the cache directory for determining if the query is cached (Col 5, lines 1-9).

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt III, Agrawal, Tock, and Chandra because the teachings of Chandra to maintain a table in the cache directory to determine if an item has been cached would improve the system of Holt III, Agrawal, and Tock by minimizing time required to obtain information from the cache, thus reducing the time it takes to service a client's request.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Friday 7 to 4.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on 571 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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December 27, 2005

JJ

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